Sidebands

The Newsletter of the EAST GREENBUSH AMATEUR RADIO ASSOCIATION

May 2023

www.egara.club

President Emeritus - Tom Scorsone, KC2FCP President - Bryan Jackson, W2RBJ Vice-President - Walt Snyder, N2WJR
Secretary - Dave Smith, WA2WAP Treasurer, Don Mayotte, KB2CDX
Board Members: Tom Scorsone, KC2FCP Russ Greenman, WB2LXC Steve VanSickle, WB2HPR

EGARA Memorial Day Special Event Station Set for USS Slater

EGARA will observe Memorial Day by operating a Special Event station aboard the USS Slater, the last remaining World War Two Destroyer Escort ship still afloat and restored to its original wartime condition. Club members will operate the Special Event station from 8 am to 4 pm on Sunday, May 28th employing AM, CW and SSB from the Slater's radio room, using both its 1940s era transmitter and its more contemporary iCom 765 transceiver.

"EGARA is pleased to be able to partner with the Destroyer Escort Historical Museum to honor both our veterans, as well as the Slater itself," said Club President Bryan Jackson, W2RBJ. "We hope our Special Event station will bring attention to the ship and the service the Destroyer Escorts provided to protect convoys from the menace of U-Boats as they transported critical troops and supplies to Europe during the World War Two."

Club members will operate the Slater's radio gear in shifts which are expected to run one to two hours each. Several members have already signed up, but those who are interested may still apply by sending an email to W2RBJ@Outlook.com. A final schedule will be established the week of May 22nd.

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The Special Event station will use the Slater's call sign -- WW2DEM -- and send QSL cards to contacts who request them and provide a self-addressed, stamped envelope.

The Slater's Radio Room

In 1944, the Slater was assigned to Atlantic convoy duty. Following the Allied victory in Europe, the ship was sent to the Pacific for further convoy duty. The Slater remained on duty in the Philippines after the war's end, before she was decommissioned in May of 1947.

EGARA also plans to support the Slater museum with a cash donation on behalf of the club's members.

Next Membership Meeting - May 10, 2023 - 7 pm - Hamfest Prep

HAPPY BIRTHDAY! EGARA TURNS 25!

The East Greenbush Amateur Radio Association has reach the quarter century mark!

The club was formed in April 1998 and received its formal Charter of Affiliation from the ARRL on January 14, 1999. Early officers were Tom Scorsone, KC2FCP as President & Station Trustee, Steven Syrotynski, KC2JXX, as Vice Presdient, Kathy Skinner KC2FCQ, as Secretary and Nick Skinner KC2DZB, as Treasurer. The Board of Directors was Chris Linck N2NEH, Russ Greenman WB2LXC, and Ken Davis KB2KFV. Russ is currently a board member today as well.

Meetings were originally held at at the Rensselaer County Search & Rescue Bldg on Neptune St. in East Greenbush. Later they were moved to the present location at the Masonic Lodge. The membership meetings were then as they are today -- the second Wednesday of the month.

EGARA Members pose for a photo in the early days of the club's existence

The origins of EGARA were recalled some years ago in a note sent to members by co-founder Bert Bruins, N2FPJ (SK) after the club's first Hamfest in May, 2004:

> ***"In 1998 when a few of us got together to form the EGARA my goal was to have a local club that would do things that the other local clubs didn't want to do. I was a member of Albany club and Troy club and none wanted to hold a Hamfest. Well, we did it. Little ole East Greenbush Club.***
>
> ***Not a bad turnout for the first one and the weather not cooperating. After talking to the vendors we were praised for our first time effort. Several even said that they go to a lot of these and we had it all together. They want to come back next year !!!***
>
> ***Hopefully next year will be BIGGER & better. A few people did a lot of work and pulled it off and we even had a small profit. We had 2 new people join the club from the Hamfest.***
>
> ***My thanks to those who put it all together. My Dream has been fulfilled."***
>
> 73,
> N2FPJ

Today, EGARA boasts some 80 members, including three who resident in England and France. And also included is Chris Linck, N2NEH, who was the club's other co-founder.

Happy Birthday to us!

Crystal Clear

By Steve VanSickle, WB2HPR

In the 1930's, early Amateur Radio transmitters were built with used, re-purposed, home built, or new components, depending on what was handy and available. Indeed, these transmitters were truly leading-edge technology for their time. But the frequency stability of early transmitters was affected by antenna capacitance -- and frequency shift resulted from windy weather, rain and other disturbances. In the early 1920's, experiments with the use of piezoelectric crystals for transmitter frequency control were just beginning.

Amateurs eagerly embraced this new technology and began to employ crystals in their home built equipment. In fact, the July 1924 issue of QST included an article on how to fabricate one's own crystal. Predictably, hams started to "roll their own".

Study the hand-built crystals in the photo to the left and notice how large they are compared with the hand-held radio. These three examples are from the late 20's -- and even outweigh the radio! (Author's collection)

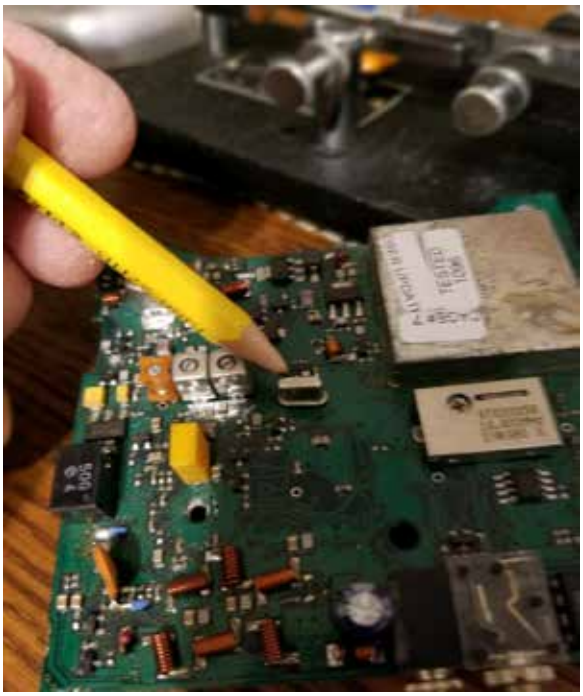
Pretty soon, many cottage industries were begun to supply the growing demand for amateur radio crystals.

It wasn't until 1926 that commercial AM broadcast station WEAF in New York City began the use of crystal control, and many other stations quickly followed suit.

Still, amateur radio demand was the primary driver of crystal production – there were 23 crystal supply advertisements in the November 1931 issue of QST!

During World War II, crystal demand further skyrocketed, and some 30 million crystals were produced to satisfy the war effort's demand for military communication equipment.

Today, crystals are employed in most electronic devices - from automobiles, to medical, industrial, consumer goods, cell phones, to – yes, ham radio! Of course, they're a lot smaller, as seen in the photo to the right, where the crystal is mounted directly on a PC board.



What began as a desire to maintain accurate frequency control in our hand- built amateur equipment has become a key component in all our present-day electronic technology. The development of crystal frequency control is but one of many contributions made by Amateur Radio to our hi-tech world. Hams continue to develop new technology, especially in the digital arena.

Who knows what lies ahead? One thing is for certain – our signals will still come in "crystal clear" for a very long time….thanks to the efforts of the early amateur radio pioneers of crystal control.

ARRL Launches Member Survey on Possible Dues Hike

During the month of May, ARRL will launch a survey of its members to get feedback on a possible dues increase. The League is encouraging all hams who belong to ARRL to participate

The survey includes some brief questions about raising dues and modifying the way some membership benefits are bundled. The survey will also include an opportunity for members to share their own feedback. The survey will continue through May

The participation of every member is important and the League has asked clubs such as EGARA to encourage their ARRL members to complete the survey while it's available during May.

The survey is available at *www.arrl.org/take-dues-survey* and is available only to members. To participate members need to be logged into the ARRL website by selecting the Login button on the top of the web page. They will then be prompted to enter their ARRL website username and password.

ARRL currently has 13 membership tiers, including discounted memberships for those who are students ($25/yr) or blind ($10/yr). The regular one-year dues are $49.00 and include a subscription to the League's magazine, QST. Lifetime memberships currently cost $1,250.

"The last time ARRL membership dues were increased was over 7 years ago in January 2016," said ARRL CEO David Minster, NA2AA. "No organization likes raising dues, but just like our personal expenses have gone up over the last few years, so to has the cost of operating ARRL."

Spring Brings Lodge Grounds Maintenance

The nice weather has finally begun its return -- and with it the need to once again provide lawn and ground maintenance for the Masonic Temple as part of EGARA's partnership agreement with the lodge.

Things began with the annual check of the mowing equipment, including oil changes on both the riding and manual mowers. Fortunately, both started with no problem -- with the battery on the riding mower being kept charged during the off season thanks to the solar cell array donated and installed last year by Steve VanSickle, WB2HPR. The first lawn mowing took place on April 26th.

Members will receive emails seeking their help with maintenance of the lodge grounds as it's required during the growing season. As always, many hands make light work!

Photo: Club VP Walt Snyder, N2WJR, prepares for the annual oil change on the riding mower. He's laying down on the job as usual.

On the Beam
News & Notes

Sponsors Lining Up for 19th Annual Hamfest!

As the June 3rd date draws near for EGARA's 19th annual Hamfest, the event has attracted sponsorship from a number of top Amateur Radio manufacturers and retailers. Most have become regulars in providing support for the club's biggest event of the year. Once again, prizes will include radios, ham software, shack accessories, and gift certificates. The Grand Prize will be $500 in cash.

"Our Hamfest has become an Amateur Radio tradition in the Northeast and continues to grow every year," said club President Bryan Jackson, W2RBJ. "A big part of that success has been the gracious support of our many sponsors, and we a truly indebted to them for their continued partnership year after year."

So far, ten major sponsors have agreed to support the 2023 event. They include: KJI Electronics, Heil Sound, Radioditty, MFJ. DX Engineering, The Original Wireman, R&L Electronics, N2FJP Software, BTech, and Riverside Stitch and Print. In addition, the event is sanctioned by ARRL, which has provided gift certificates for merchandise offered by the League.

Preparation for the Hamfest will be discussed during the club's May membership meeting. Members will be asked to sign up for the various jobs that will need to be filled. As in the past, setup will take place the night before the Hamfest on Friday, June 2nd. This will include transporting Hamfest supplies from the Masonic Lodge to the East Greenbush Town Park. Friday will also involve the purchase of food and beverages that will be sold during the event.

Due to rising costs, admission will be $8.00 this year, with tables available for $10 -- which also includes an admission ticket. The Hamfest will operate from 8 am to 1 pm.

Need to Join or Renew ARRL Membership? Do it Through EGARA!

ARRL
The national association for AMATEUR RADIO

EGARA uses the Club Commission Program to generate income and promote ARRL membership. Now, ARRL has increased a club's commission rate from $2 to $5 when it processes a member's renewal. New memberships still earn a club $15 for handling the processing.

If your renewal is due soon, consider having the club process it for you. And, you can even renew early renew without losing time. For example, if your renewal is normally in July and you renew in May, the time is added to your July date.

In addition to the commission rate increase, ARRL has instituted other new benefits.

One of these is for every five new members signed through the Club Commission Program until the end of 2023, ARRL will give the club a copy of The ARRL Handbook, which can be used as a promotion, a door prize, an auction item at hamfests, or however the club may choose.

With a possible hike in dues coming soon, now is an excellent time to consider joining or renewing.

EGARA April Meeting Minutes

- **The April meeting of the EGARA was called to order by President Bryan Jackson, W2RBJ at 7:02 PM. There were 21 members in attendance at the Masonic Temple.**

- **After a round-robin introduction, the raffle was conducted, and several nice prizes were given out.**

- **Annual elections were held by paper ballot. The results were as follows: President: Bryan Jackson, W2RBJ; Vice President: Walt Snyder, N2WJR; Treasurer: Don Mayotte, KB2CDX; Secretary: Steve VanSickle, WB2HPR. Board members as follows: Tom Scorsone, KC2FCP. We thank outgoing Secretary Dave Smith, WA2WAP for his past service as club Secretary.**

- **The Library has been reserved for June 10 for a VE session. This will be the last opportunity to take the General Exam with the current question pool.**

- **Hamfest plans are underway – a suggested admission ticket price is $8 due to increased operating costs. Vendor and sponsor contacts are being confirmed.**

- **The annual ARRL field day was discussed. Is there a possibility to operate with other local clubs? The YMCA was mentioned as a possible location.**

- **Annual lawn care season is upon us, and volunteers are needed to help perform this task as a part of our agreement with the Masons.**

- **New business: Will the club operate from the USS Slater during Memorial Day weekend. Tom, KC2FCP will contact W2THR for more information. Also – there may be some interest in a trip to the ARRL HQ in Newington. These two events may be held in lieu of formal club meetings during July and August.**

- **Following the business meeting, Bryan Jackson, W2RBJ presented a slide show and led a discussion concerning the sinking of the Titanic 111 years ago. The emphasis was to show the significance of how revolutionary wireless technology was used, shaping the outcome of the disaster. There were several comments and questions, and Bryan shed new light on how so many factors led to this tragic accident.**

- **Refreshments were enjoyed by the membership. The meeting was adjourned at 8:55 PM.**

- **Minutes recorded by Secretary Steve VanSickle, WB2HPR**

The History of Ham Radio: Wabbulation

Chris Codella, W2PA, author, John Pelham, W1JA, editor, Phil Johnson, W2SQ, editor

(Editor's note: By special arrangement with the authors, Sidebands is pleased to present this multi-part series on the history of ham radio. Subsequent chapters will be published in future monthly editions of the newsletter)

Amateurs had been operating radiotelephone on the 80-meter band between 3,500 and 3,600 kHz since it had first been permitted in late 1925. To do so they had to return their licenses to their local radio supervisor for endorsement. On the 150-meter band, phone already dominated operation. And as the broadcasting boom continued, phone's popularity grew as a specialized pursuit for some amateurs on both bands. For others it was a source of QRM since every phone allocation shared space with CW in its various forms, particularly on 80 meters, and there was not yet a band plan to keep them separated.

Whether from proponents or detractors, the heightened interest in phone operation caused QST Technical Editor Robert Kruse to call for articles about it. Long before he joined the ARRL staff, Kruse, with his background at the Bureau of Standards, had been a vocal proponent of clean signals, especially on phone, calling for honest signal reports, observing that horrible signals were being met with reports of "FB OM." But his viewpoint had softened considerably since 1921 when he had referred to phone as an "obnoxious perversion of the CW set." Six years later, though he considered phone worthwhile, hams still had a long way to go to get decent signals on the bands. So he called for QST articles not with a main editorial or a technical article introducing the problems in detail, but with all of two-sentences as a Strays entry in the June 1927 issue of QST.

"QST could find space for a few good articles on amateur phone operation. Anybody got anything they'd be good enough to write up for the information of the gang?

There was no title, nothing to draw attention to it—the third and last item in this Strays column. But it was situated at the bottom of the same page as ARRL Secretary Kenneth Warner's correspondence with the Federal Radio Commission about the fate of the 150-meter band, something nearly all readers paid close attention to. No one missed seeing those two little sentences in Strays. The volume of reaction, which ranged widely between opposite viewpoints, probably surprised Kruse and was large enough to prompt him to elaborate in QST later that summer—taking a half-page this time.

His disdain for the current state of phone operation was palpable. Most of what he heard on the air was awful, though not hopeless, and he believed that to get it right the proper construction and adjustment of a station for phone operation required far more care than for CW. So he asked readers to send material describing "actual high grade radiotelephone stations" and technical details about common challenges such as purity of power supply, modulation systems, and speech amplifiers.

If such material can be obtained—if any reader knows where to get it—then it seems entitled to be considered with QST's other material and to be allowed space in the magazine in case it is able to stand the test of comparison with other contributions. If it cannot stand that test it does not belong in the magazine, just as the phone itself will deserve more space in the ether only if it can prove itself the equal of c.w. in effectiveness without an undue creation of undesirable situations.

He plainly had reservations beyond concern for column space in QST.

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History of Amateur Radio...

At the same time, a single letter to QST touched off its own thread of discussion, indicating the high level of reader sensitivity to the subject. 8MX and 8CBM, of the US Army's amateur station 8BMW in Detroit, wrote that 80 meters was "too small and too important to be monopolized by phone," and suggested that the band be returned to CW-only operation and that 150 to 175 meters should be a phone-only band where, they said, "the very few credible phones on 80 would be super-quality" (meaning that if a station had achieved good quality at 80 meters, it would sound even better on 150 since quality signals were easier to produce there). This would also help firmly establish amateur use of that band and open the possibility of 175 to 200 meters being offered in appeasement to the broadcasters if and when they again pushed for expansion. Several reactions followed, the unusually large number of which probably indicating a lively behind-the-scenes collection of viewpoints from which the editors had selected a few to publish:

8RD, also of Detroit, came to 80-meter phone's defense saying he'd had success working several hundred miles on the band at night.5 Phone was a bit harder than on 17 meters but the distance was much greater. Besides receiving complimentary audio reports in QSOs, his evidence of good modulation was that his call sign was almost never copied incorrectly. (Phonetics were not yet widely used.) He also took note of a growing phone listenership, claiming that a fifteen-minute QSO would typically result in his receiving eight QSL cards.

7OX of Yakima, Washington, had been in radio since 1920 on all modes, worked DX, experimented with everything, but had grown tired of CW and with short, non-conversational QSOs that were meant only to produce a card. He now wanted to do something "that has a kick to it" by comparing his phone signals to CW on the same band, as did many others. Why keep phone in the 150 meter band? He wanted to hear more opinions on both sides of the issue, adding, "Why not turn our energy to making amateur phone something to be proud of? We have heard amateur phones that were superior to some of the broadcasting stations…"

A newly licensed amateur, 9AUH in Louisville, was drawn into amateur radio from being a broadcast listener hearing amateur phone operators and reading QST. He did not understand the 8BMW crew's claim that 80 meters was being "monopolized" by phone operation when the bulk of traffic was now handled on 40 and 20. "I understand that phones are permitted only from 170 to 180 meters and 83.28 to 85.66 meters while our honorable brass pounding brothers have six, count 'em, bands in which to pursue their feverish struggle for a W.A.C. certificate," he wrote, adding "More power to 'em!" But QST should be representing the phone enthusiasts too since they were "far more numerous than is supposed."

From Lincoln, Nebraska, 9ANZ's view was that, although amateur radio was usually said to exist for operator training and development of radio technology, we were, in fact, all in it for fun. He got more fun out of tinkering with the technology than even operating, and had started using phone on 85 meters within days of its authorization. "Short-wave radio telephony is about due for development," he judged. It was not true that phone operators were poor CW operators; many were experts such as he was, being a "95%" CW operator. Some also took advantage of the brief period of regulatory uncertainty to operate on 40 and 20 meters with very encouraging results (even as he deemed such operation "foolish or inconsiderate"). He therefore advocated the expansion of phone privileges in the lower (wavelength) fifth of each band, the way it was on 80 meters. He realistically did not expect phone to compare with CW for DX work but nonetheless considered it valuable for communicating over long distances under good conditions.

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History of Amateur Radio...

After several months of taking this all in, Kruse had his own say, in detail, about the central problem in amateur radiotelephone. Taking aim at a popular misconception that phone signals were no wider than CW, he built his case step by step: With no key or microphone attached and a pure DC supply, CW theoretically has a single frequency component. Adding an AC plate supply one would also get two sidebands each 60 Hz away. If the station were using 500-cycle power, as did NAA, the sidebands would be separated enough that one could tune in to three distinct signal peaks. With voice modulation, those two sidebands would extend out, say, 3,000 Hz each if that were the range produced by the modulation system.

In this pure-carrier picture, one ought to be able to get very close to the edge of a phone station and not hear any interference. But that was hardly the practical case for phone or CW. "Now you know perfectly well that not one phone in a hundred is as sharp as that—nor one telegraph station in a dozen," he reminded readers, asserting that "The sideband business utterly and entirely fails to explain the practical broadness of transmitters." There were much bigger problems with the current practice of radio that overwhelmed theoretical bandwidth, things that made carriers impure.

If, as had been demonstrated, one could produce a cleanly modulated signal (what he called "sharp" carrying over a term from the earlier spark vs. CW discussions) even with sidebands, then one must look to something else as the cause of all the problems: a thing he called "wabbulation." By this he meant inadvertent modulation of the carrier frequency. In a well-designed oscillator, lifting the key should simply cause the carrier to die out. But in a poor one, the frequency first would "swoop" across the spectrum far beyond 3 kHz. If you took an oscillator like that and used an AC plate supply (a common practice), it would be swooping 120 times per second! Besides causing QRM, a broadened signal was wasteful since at the receiver the extra breadth is not converted to sound. An unstable oscillator could also be shifted by a changing load, as when modulating an amplifier stage. One way to stabilize a transmitter was to use a crystal-controlled oscillator, but crystals were not yet widely available, at least not at a price affordable to most hams.

As an example of a good phone signal, Kruse cited the dramatically cleaned-up one coming from the WBZ transmitter, which now had a rock-stable carrier and sharp signal even when modulated and even though they were now transmitting with much higher power. Strong and clean were not mutually exclusive qualities of a radiotelephone signal. Amateurs had a lot of work to do. They'd soon be forced into action—innovation yet again—less than two years hence.

On 28 October 1927, the FRC expanded the phone allocation to include 150 to 190 meters (1,580 to 2000 kHz), and the top quarter (lower frequencies: 14,000 to 14,500 kHz) of the 20-meter band and the entire 5-meter band, but eliminated the phone band on 80 meters. The upper part (longest wavelength) of the 150-meter band was kept free of phone, not to protect CW operation, though that was also an effect, but as a "guard band" to keep amateur signals away from the broadcast wavelengths above. Some hams considered the loss of phone on 80 a good thing since many were complaining of QRM problems to both phone and CW stations and that the mixture on that band may have been a mistake. Nevertheless, later deciding it had overreacted by eliminating phone completely, the government restored phone privileges to the band.

Coincident with phone expansion, the final chapter was written for spark. While no spark transmitters had been heard on the air for quite some time, the FRC issued, for the first time, a federal regulation banning its use on all amateur bands.

Looking for Great Deals?
Get Them From a EGARA 2023 Hamfest Sponsor!

Loss of AM in Cars: "1,300 AM Stations Could Be Left in the Dark"

Radio World Magazine

The National Alliance of State Broadcasters Association (NASBA) is reporting insights it discovered after polling AM stations about the removal of over-the-air AM in new cars.

The data collected from more than 1,000 AM stations shows that many do not have an FM translator and/or do not stream their signals over internet connections, NASBA says. The group is hoping to use the information to rally proponents of AM to help convince companies like Ford, Mazda, BMW and others to keep reception of AM in their new vehicles.

NASBA says the automakers "are cutting corners on expensive new electric vehicles" by eliminating AM radios, which means more than 4,000 AM stations in the United States are at risk. But its survey results show that AM radio across the country provides a diverse mix of music and talk and is a vital link for millions of listeners.

"The goal of our station survey was three-fold. First, we wanted to confirm AM radio's diverse landscape of formats, languages and ownership. Second, we wanted to quantify AM radio's crucial part in the nation's Emergency Alert System. And third, we wanted feedback that will guide our state association response going forward," said Dewey Bruce, president of the National Alliance of State Broadcasters Associations and the Montana Broadcasters Association.

Automakers contend AM radio programming is often available through other means in the car, such as FM translators, streaming apps and HD Radio side channels.

But while upwards of 70% of responding stations have FM translators, NASBA says hundreds of stations are without a home on FM. "Extrapolating that percentage to the 4,475 licensed AM stations in the United States means that 1,300 AM stations could be left in the dark," NASBA wrote in the report.

Of the roughly 725 stations that indicated they did have an FM translator, less than 20% have an FM signal coverage area that is equal to or greater than its AM counterpart, according to NASBA.

Additionally, the survey found that more than half of AM stations do not currently have a standalone mobile app and 40% are not currently found on radio aggregators. "For many AM operators working diligently to keep their over-the-air signal on the air, providing the local news, music, entertainment and emergency information that their communities rely upon, the expense of streaming their station and paying additional royalties is simply not realistic."

Forty percent of station respondents air music formats ranging from classic country and oldies to Spanish Regional Mexican and inspirational gospel, according to NASBA's Dashboard Subcommittee, so the notion that only talk-radio thrives on AM radio is incorrect.

The potential loss of AM in autos has motivated the radio industry to go on the offensive — emphasizing the value of AM radio content and its critical role in emergency alerting. A grand total 99% of respondents to NASBA's survey say they participate in the Emergency Alert System. In addition, most Primary Entry Point (PEP) stations are AM stations, which constitute 90% of coverage of the U.S. population, according to FEMA statistics.

The most telling survey result, according to NASBA, is that 8 in 10 of the radio stations responding listed their level of concern as 10 out of 10 when it comes to AM being eliminated in the car.

Eight automakers have decided to drop AM radio from some of their models, mostly EVs, and have cited interference with AM radio reception caused by electric motors as the reason.

FCC Asks Amateurs for Comment on Proposed Changes to 60-Meter Band

The Federal Communications Commission is seeking comments about changing the secondary allocation available to radio amateurs on 60 meters. The FCC issued a Notice of Proposed Rulemaking (NPRM) on April 21, 2023 proposing to allocate 15 kHz of contiguous bandwidth between 5351.5 - 5366.5 kHz on a secondary basis with a maximum power of 15 W EIRP (equivalent to 9.15 W ERP). This allocation was adopted at the 2015 World Radiocommunication Conference (WRC-15).

In a prior petition, ARRL The National Association for Amateur Radio® urged protecting the existing use of the band by Amateurs when adding a new allocation adopted internationally.

Currently, radio Amateurs in the US have access to five discrete channels on a secondary basis: 5332 kHz, 5348 kHz, 5358.5 kHz, 5373 kHz, and 5405 kHz. Users of these channels are limited to an effective radiated power (ERP) of 100 W PEP.

The federal government is the primary user of the 5 MHz spectrum. The government's manager of spectrum use, the National Telecommunications and Information Administration (NTIA), has expressed support for implementing the allocation as adopted at WRC-15. However, doing so would result in Amateurs losing access to four of the five discrete channels, and power limits would be reduced from 100 W ERP to 9.15 W ERP. In return, it would provide amateur access to a new contiguous 15 kHz band that includes one of the current five channels.

In 2017, ARRL petitioned to the FCC to keep the four 60-meter channels that fall outside the new band, as well as the current operating rules, including the 100 W PEP ERP limit.

The ARRL petition stated, "Such implementation will allow radio Amateurs engaged in emergency and disaster relief communications, and especially those between the United States and the Caribbean basin, to more reliably, more flexibly, and more capably conduct those communications."

ARRL said that years of Amateur radio experience using the five discrete channels have shown that amateurs can coexist with primary users at 5 MHz while complying with the regulations established for their use. The petition also stated, "Neither ARRL, nor, apparently, NTIA, is aware of a single reported instance of interference to a federal user by a radio amateur operating at 5 MHz to date."

In the NPRM, the FCC recognizes that Canada has already adopted 60-meter allocations and related rules that align with those proposed by ARRL. The Commission wrote, "Finally, we note that Canada has essentially implemented the same rules as ARRL has requested."

The FCC proposed to allocate the 15 kHz bandwidth, but stopped short of making a proposal on whether the existing channels should remain allocated to Amateur radio and what the power limitations should be. They requested comments on their proposal and the related channel and power issues.

Comments will be due 60 days after the NPRM is published in the Federal Register, which is expected within the next two weeks.

Three Hams Named to Artemis II Moon Mission

The Artemis 2 crew, from left: Pilot Victor Glover, KI5BKC, **Commander Reid Wiseman,** KF5LKT, **and mission specialists Jeremy Hansen**KF5LKU. **and Christina Koch. Together, they will become the first people to fly to the moon in more than 50** years. (Image credit: NASA)

A trio of Amateur Radio operators are slated to be aboard the Artemis II mission when it ventures around the Moon late next year.

NASA and the Canadian Space Agency (CSA) announced the three astronauts will be mission Commander Reid Wiseman, KF5LKT, Pilot Victor Glover, KI5BKC, and Mission Specialist 2 Jeremy Hansen, KF5LKU. A fourth member of their crew, Mission Specialist 1 Christina Hammock Koch, had planned to study and take her Amateur license exam, but had to postpone it to immediately begin preparing for the flight.

This will be the first crewed mission on NASA's path to establishing long-term Moon science and exploration development. The agencies revealed the crew members on Monday, April 3, 2023, during an event at Ellington Field near NASA's Johnson Space Center in Houston, Texas.

"The Artemis II crew represents thousands of people working tirelessly to bring us to the stars. This is their crew, this is our crew, this is humanity's crew," said NASA Administrator Bill Nelson.

"NASA astronauts Reid Wiseman, Victor Glover, and Christina Hammock Koch, and CSA astronaut Jeremy Hansen, each has their own story, but together, they represent our creed: E pluribus unum - out of many, one. Together, we are ushering in a new era of exploration for a new generation of star sailors and dreamers - the Artemis Generation."

The Artemis II mission is scheduled to launch in November 2024. The crew will work as a team to execute an ambitious set of demonstrations during the flight test.

The approximately 10-day flight test will launch using the agency's powerful Space Launch System rocket. Goals include proving the Orion spacecraft's life-support systems, and validating the capabilities and techniques needed for humans to live and work in deep space.

CALENDAR

May 10, 2023 - 7 pm - Monthly Club Meeting, East Greenbush Masonic Lodge. Hamfest Prep. Hisen Zhang will present updates on the FCU, the Raspberry Pi SDR system now with Tx capability.

May 28, 2023 - 8am - 4 pm - Memorial Day Weekend Special Event Station aboard USS Slater. Contact: W2RBJ@Outlook.com

June 3, 2023 - 2023 Hamfest, East Greenbush Town Park, 8 am to 1 pm.

June 10, 2023 - 11:15 am - VE FCC License Test Session, East Greenbush Library - Contact: W2RBJ@Outlook.com

Pro Tip: Rigging Antenna Support Ropes

Need to get an antenna support rope up a tree? Try these ideas:

1) Tie a light string around a rock and toss it over a convenient tree limb.

2) If you are a good fly fisherman, you can lob a line over any limb of choice.

3) A powerful slingshot will put a lightweight fishing sinker and light weight monofilament fishing line about 50 feet up a tree.

4) The real pros are the archers. Forget picking a particular limb, select a tiny branch all the way up in the top of the tree and an archer will lay a line right over the spot and do it the first time. You don't have to have an $800 bow to get the job done. An inexpensive, fiberglass, long bow with 79¢ arrows can work, although it may take more shots.

If you add extra weight on the front of the arrow, it will be more apt to drag the monofilament or line out of the tree and down to the ground where you can reach it.

The East Greenbush Amateur Radio Association

Organized in 1998, by Bert Bruins, N2FPJ, (SK) and Chris Linck, N2NEH, the East Greenbush Amateur Radio Association, an ARRL affiliate, is committed to providing emergency services, educational programs, and operating resources to amateur radio operators and residents of the Capital Region of New York State. The club station is W2EGB. The club also has several VHF and UHF repeaters open to club members and the public.

GEAR FOR SALE

- Acom 1500 Linear Amp w/ manual. Still in production, retails new $4500. Asking $3200.00. Contact Patrick Negus, KD2ZQR: pnegus1968@gmail.com

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- **MFJ - 941D versa tuner (2 available), $25 each**
- **Voltmeter kit, $5**
- USB signal link. $50

Contact Don, KB2CDX at: ddm653@gmail.com

- **MFJ-9575,** 10 watt 75 meter LSB transceiver
- **DX Engineering,** 200 watt 75 meter bandpass filter
- **TEN-TEC 1209,** 2 meter to 6 meter transverter
- **TEN-TEC 1210** 10 meter to 6 meter transverter

Make offers for any above
Contact: John Hackert, WA2JAE (518) 381-4847, Email: Wa2jae@Arrl.net or John.hackert@Reagan.com

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- **CROWPI W/PI4** - 4G and power supply $250.00
- **DS-230 digital oscilloscope,** 2 probes & charger $75
- **MFJ Hamsticks** 40m, 20m, 15m, 10m - $15 ea. - $50 4 all
- **HQ-170 Receiver** w/ spkr-Refurb by WB2HPR $350.00
- **VIKING RANGER Transmitter** refurb by N2CJF w/ antenna relay,d104 desk mic,manuals and Augio modd, spare 6146 tubes.$350.00
- **ATAS-120A Autotune Antenna** for yaesu FT 991a compatible - used 3 mos w/cable $300.
- **COMET CF-706** Duplexer, $40.00
- **Older Military Key** W/ Leg Straps Cable & Plug For Ft-991A $40.00
- **Knight KG-6000 Tube Tester, $125.**

Contact Dave Smith, WA2WAP at voyagerusa@verizon.net

- **Cobra ultra lite 80-10 dipole** 80-10m $75.00 w/ balun.
- **Heil RS 1 12' riser** brand new $ 30.00

Contact Walt, N2WJR, N2WJR07@gmail.com

Sell your unused gear with a free ad in Sidebands!
Send details to:
W2RBJ@Outlook.com